

In the Claims

1. (currently amended) A hollow fiber membrane module, comprising (a) a cylindrical case, (b) a first sealing body provided for sealing ~~one~~a first end of the cylindrical case, (c) a second sealing body provided for sealing ~~the other~~a second end of the cylindrical case, (d) a first cap provided for the cylindrical case outside the first sealing body, (e) a second cap provided for the cylindrical case outside the second sealing body, (f) a filtration chamber formed by ~~the~~an inner wall surface of the first sealing body, ~~the~~an inner wall surface of the second sealing body and ~~the~~an inner wall surface of the cylindrical case, (g) a first chamber formed by ~~the~~an inner wall surface of the first cap and ~~the~~an outer wall surface of the first sealing body, (h) a second chamber formed by ~~the~~an inner wall surface of the second cap and ~~the~~an outer wall surface of the second sealing body, (i) a hollow fiber membrane bundle ~~accommodated~~contained in the filtration chamber and attached to the first sealing body, with ~~one~~a first end of the bundle opened toward the first chamber, and attached to the second sealing body, with ~~the other~~a second end of the bundle closed against the second chamber; or attached to the first sealing body, ~~with wherein both the first and second ends of the bundle opened toward~~in the direction of the first chamber, ~~the and wherein entire the bundle being is~~curved in U-shape, (j) a raw water supply port formed ~~in~~on a lateral face of the cylindrical case and opened toward the filtration chamber ~~at~~in a position near the second sealing body, (k) an air discharge port formed ~~in~~on a lateral face of the cylindrical case and opened toward the filtration chamber ~~at~~in a position near the first sealing body, (l) fluid flow holes for allowing the flow of air and drain, formed in the second sealing body and through the second sealing body from the filtration chamber, (m) a filtrate delivery port formed ~~in~~on the first cap and opened toward the first chamber, and (n) a drain port formed ~~in~~on the second cap and opened toward the second chamber.

2. (currently amended) A hollow fiber membrane module, according to claim 1, wherein the minimum lateral cross sectional area defined by ~~the~~an inner circumferential face of the cylindrical case is at least 150 cm^2 ~~or more~~ and the packing rate of the hollow fiber membranes constituting the hollow fiber membrane bundle at the inner wall surface position of the first sealing body is in a range of 40 to 70%.

3. (currently amended) A hollow fiber membrane module, according to claim 1, wherein at the first or second sealing body ~~and/or the second sealing body~~, the hollow fiber membrane bundle attached to the first or second sealing body/~~bodies~~ is kept apart from the inner wall surface of the cylindrical case by means of a spacer/~~spacers~~ ~~protruded~~ protruding from the inner wall surface of the cylindrical case.

4. (currently amended) A hollow fiber membrane module, according to claim 3, wherein the protruding height of ~~the spacer(s)~~ said spacer from the inner wall surface of the cylindrical case is in a range of 2 to 10 mm.

5. (currently amended) A hollow fiber membrane module, according to claim 4, wherein ~~the face(s)~~ one face of ~~the spacer(s)~~ said spacer ~~on~~ facing to the first or second sealing body ~~side(s)~~ is/are is inclined in the direction leaving from the inner wall surface(s) of the ~~sealing body/bodies~~ first or second sealing body toward the center of the cylindrical case.

6. (currently amended) A hollow fiber membrane module, according to claim 1, further comprising a an openable and closable cover ~~that can be opened and closed~~ provided at the crest of the first cap to allow ~~the repair of the hollow fiber membranes of the hollow fiber membrane bundle attached to the first sealing body~~ is provided at the crest of the first cap.

7. (currently amended) A hollow fiber membrane module, according to claim 1, wherein the second cap ~~is provided with~~ further comprises an air supply port having a restriction opened toward the second chamber and a check valve.

8. (original) A hollow fiber membrane module, according to claim 1 or 2, wherein the cylindrical case is a blow-molded article or thermoformed article made of a thermoplastic resin.

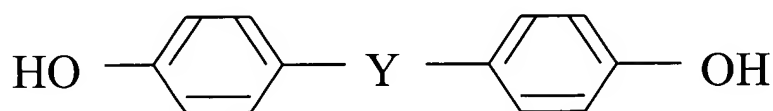
9. (original) A hollow fiber membrane module, according to claim 8, wherein the thermoplastic resin is a polyvinyl chloride resin.

10. (currently amended) A hollow fiber membrane module, according to claim 9, wherein the polyvinyl chloride resin contains a non-lead compound suitable to act as a thermal stabilizer.

11. (currently amended) A hollow fiber membrane module, according to claim 1 or 2, wherein the cylindrical case ~~is made of~~ comprises an acrylonitrile-X-styrene copolymer (AXS) resin.

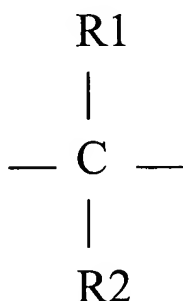
12. (currently amended) A hollow fiber membrane module, according to claim 11, wherein ~~the X denotes~~ is ethylene propylene rubber or acrylic rubber.

13. (currently amended) A hollow fiber membrane module, according to claim 1, wherein ~~the a resin used to form the first or second sealing body and/or the second sealing body is~~ a resin used to form the first or second sealing body is an epoxy resin having bisphenol represented by the following general formula



~~(where wherein~~ Y denotes is an alkylene group).

14. (currently amended) A hollow fiber membrane module, according to claim 13, wherein ~~the Y is represented by:~~



(~~where~~ wherein R1 and R2 denote, respectively are independently, a C_nH_{2n+1} (~~where~~ wherein n denotes is 0 or an integer of 2 or more)).

15. (original) A hollow fiber membrane module, according to claim 13 or 14, wherein the epoxy resin is a bisphenol F type epoxy resin.

16. (currently amended) A hollow fiber membrane module, according to claim 13, wherein the epoxy resin[s] penetrates into pore spaces formed in the membrane of the hollow fiber membrane bundle by 1 vol% or more of the volume of the pore spaces.

17. (currently amended) A hollow fiber membrane module, according to claim 1, wherein the filtration chamber is ~~of a~~ pressurization type, in which ~~wherein it the filtration chamber is~~ pressurized at higher than the atmospheric pressure during filtration or backwashing.

18. (currently amended) A hollow fiber membrane module unit, ~~comprising which comprises at least two the hollow fiber membrane module modules described defined in claim 1 and one more identical hollow fiber membrane modules connected with each other,~~ wherein the respective air discharge ports of the ~~plural~~ hollow fiber membrane modules are connected with a common pipe that is located at a position lower than the respective air discharge ports.

19. (currently amended) A hollow fiber membrane module unit, according to claim 18, wherein the ~~plural~~ hollow fiber membrane modules are mounted in ~~plural~~ at least one rows on a frame.

20. (currently amended) A hollow fiber membrane module unit, according to claim 19, wherein ~~the plural~~ said at least one rows of said hollow fiber membrane modules are positioned symmetrically about a line or a zigzag.

21. (currently amended) A hollow fiber membrane module unit, according to claim 20, wherein the respective raw water supply ports of the ~~plural~~ hollow fiber membrane modules are connected with a common raw water supply pipe, and the filtrate delivery

ports of the ~~plural~~ hollow fiber membrane modules are connected with a common filtrate delivery pipe.

22. (currently amended) A hollow fiber membrane module unit, according to claim 20, wherein at least one of the pipes connected with the raw water supply ports, the air discharge ports, the filtrate delivery ports and the drain ports is connected by means of a loose joint at the connection-~~concerned~~.

Claims 23-27 (canceled)